

## **Regional HIV/AIDS Epidemiologic Profile of Central Health Service Region (HSR), Massachusetts: 2015**

### **Recent changes to the presentation of Massachusetts HIV/AIDS surveillance data**

Effective January 1, 2011, the Massachusetts Department of Public Health (MDPH), Bureau of Infectious Disease, HIV/AIDS fact sheets, epidemiologic reports and other HIV data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts. As of January 1, 2015, this resulted in the removal of 4,401 HIV/AIDS cases, of which 1,021 have died and 3,380 were living. These persons living with HIV/AIDS may still continue to reside and receive care in the Commonwealth. The total number of persons living with HIV/AIDS, irrespective of location at diagnosis, is the basis for MDPH service planning. Please note that previous HIV/AIDS fact sheets, data reports and presentations included cases that may have been first diagnosed in another state.

Also effective January 1, 2011, the MDPH HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to eliminate the presumed heterosexual risk category for men; those cases have been reassigned to the no identified risk (NIR) category. The presumed heterosexual risk category was used with the intention of identifying HIV risk for women when sex with men is the only reported risk factor, there is no evidence of current or past injection drug use (IDU), and behavioral risk and HIV status information about male sexual partners are unknown. The application of the presumed heterosexual risk category to men is overly inclusive in that woman to man HIV transmission is biologically less probable, and there are alternate risks that are possible for men, including sex with other men (MSM) or IDU. The CDC reports men diagnosed with HIV/AIDS who report sex with women as their only risk factor, without corresponding partner risk or HIV status information, in the NIR category. This revision to report presumed heterosexual male HIV/AIDS cases as NIR will bring Massachusetts HIV/AIDS case reporting for men in alignment with CDC standards. The MDPH will maintain presumed heterosexual and heterosexual risk categories for women.

**Table 1. Total number of people reported with HIV infection or AIDS<sup>1</sup> by mortality status on December 31, 2014: Central HSR, Massachusetts<sup>2</sup>**

	<b>N</b>	<b>%</b>
People Living with HIV/AIDS	1,654	59%
People Reported with HIV or AIDS who are Deceased	1,138	41%
<b>Total Number of People Reported with HIV Infection or AIDS</b>	<b>2,792</b>	<b>100%</b>

<sup>1</sup> Does not include individuals diagnosed with HIV infection (non-AIDS) who died prior to January 1, 1999 or who were not in care on January 1, 1999

<sup>2</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/15

**Table 2. Average annual rate of HIV infection diagnosis from 2011 to 2013 and HIV/AIDS prevalence rate on 12/31/14<sup>1</sup>: Central HSR, Massachusetts<sup>2</sup>**

<b>Average annual HIV diagnosis rate from 2011–2013</b>	<b>Average rate per 100,000</b>	<b>Average annual number of HIV diagnoses</b>
Central HSR, MA	6.4	55.0
Massachusetts Total	10.7	701.3
<b>HIV/AIDS prevalence rate on 12/31/14</b>	<b>Rate per 100,000</b>	<b>Number of people living with HIV/AIDS</b>
Central HSR, MA	192.8	1,654
Massachusetts Total	301.5	19,737

<sup>1</sup> The denominators for rate calculations are from the MDPH Massachusetts Race Allocated Census 2010 Estimates (MRACE 2010), Massachusetts Department of Public Health, Bureau of Health Information, Statistics, Research, and Evaluation.

<sup>2</sup> Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/15

**Table 3. People living with HIV/AIDS<sup>1</sup>, deaths among people reported with HIV/AIDS, and newly diagnosed HIV infections by year<sup>2</sup>: 2004–2013, Central HSR, Massachusetts<sup>3</sup>**

<b>Year</b>	<b>HIV/AIDS Prevalence</b>	<b>Deaths among those with HIV/AIDS</b>	<b>Diagnosis of HIV Infection</b>
2004	1,322	42	84
2005	1,352	42	72
2006	1,401	32	81
2007	1,431	30	60
2008	1,461	28	58
2009	1,489	28	56
2010	1,526	23	60
2011	1,571	16	61
2012	1,602	26	57
2013	1,632	17	47

<sup>1</sup> Number of people living with HIV/AIDS on 12/31 of each year

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

<sup>3</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/15

**Table 4. People diagnosed with HIV infection from 2011–2013<sup>1</sup> and people living with HIV/AIDS on December 31, 2014 by gender, place of birth, race/ethnicity, exposure mode, age at HIV infection diagnosis and current age: Central HSR, Massachusetts<sup>2</sup>**

HIV Infection Diagnoses			PLWH/A	
Gender:	N	%	N	%
Male	111	67%	1,036	63%
Female	54	33%	618	37%
Place of Birth:	N	%	N	%
US	87	53%	997	60%
Puerto Rico/US Dependency <sup>3</sup>	19	12%	287	17%
Non-US	59	36%	370	22%
Race/Ethnicity:	N	%	N	%
White (non-Hispanic)	56	34%	685	41%
Black (non-Hispanic)	55	33%	430	26%
Hispanic/Latino	46	28%	498	30%
Asian/Pacific Islander	5	3%	29	2%
Exposure Mode:	N	%	N	%
Male-to-male sex (MSM)	61	37%	437	26%
Injection Drug Use (IDU)	17	10%	424	26%
MSM/IDU	-- <sup>7</sup>	-- <sup>7</sup>	51	3%
Heterosexual Sex	20	12%	297	18%
Other	-- <sup>7</sup>	-- <sup>7</sup>	48	3%
Total Undetermined	62	38%	397	24%
• Presumed Heterosexual Sex <sup>4</sup>	30	18%	192	12%
• Undetermined <sup>5</sup>	32	19%	205	12%
Age:	N	%	N	%
	At Diagnosis		On December 31, 2014	
Under 13	1	1%	3	<1%
13 to 19	6	4%	4	<1%
20 to 24	20	12%	26	2%
25 to 29	18	11%	59	4%
30 to 34	26	16%	73	4%
35 to 39	24	15%	109	7%
40 to 44	22	13%	173	10%
45 to 49	20	12%	252	15%
50 to 54	16	10%	355	21%
55 to 59	8	5%	295	18%
60+	4	2%	305	18%
<b>Total<sup>6</sup></b>	<b>165</b>	<b>100%</b>	<b>1,654</b>	<b>100%</b>

<sup>1</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

<sup>2</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>3</sup> Ninety-nine percent of people diagnosed with HIV infection from 2011–2013 who were born in a US dependency were born in Puerto Rico, <1% were born in the US Virgin Islands.

<sup>4</sup> Includes female sex with male of unknown HIV status or risk. This category is limited to females.

<sup>5</sup> Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

<sup>6</sup> Total includes American Indian/Alaska Native, other and unspecified race/ethnicity.

<sup>7</sup> Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/15

**Table 5. People living with HIV/AIDS on December 31, 2014 by gender and race/ethnicity: Central HSR, Massachusetts<sup>1</sup>**

Race/Ethnicity:	Male		Female	
	N	%	N	%
White (non-Hispanic)	515	50%	170	28%
Black (non-Hispanic)	206	20%	224	36%
Hispanic/Latino	284	27%	214	35%
Asian/Pacific Islander	24	2%	5	1%
<b>Total<sup>2</sup></b>	<b>1,036</b>	<b>100%</b>	<b>618</b>	<b>100%</b>

<sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Total includes American Indian/Alaska Native, other and unspecified race/ethnicity.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/15

**Table 6. People living with HIV/AIDS on December 31, 2014 by gender and exposure mode: Central HSR, Massachusetts<sup>1</sup>**

Exposure Mode:	Male		Female	
	N	%	N	%
Male-to-male sex (MSM)	437	42%	N/A	N/A
Injection drug use (IDU)	258	25%	166	27%
MSM/IDU	51	5%	N/A	N/A
Heterosexual sex	81	8%	216	35%
Other	26	3%	22	4%
Total Undetermined	183	18%	214	35%
• Presumed heterosexual sex <sup>2</sup>	N/A	N/A	192	31%
• Undetermined <sup>3</sup>	183	18%	22	4%
<b>Total</b>	<b>1,036</b>	<b>100%</b>	<b>618</b>	<b>100%</b>

<sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Includes female sex with male of unknown HIV status or risk. This category is limited to females.

<sup>3</sup> Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

N/A=Not Applicable

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/15

**Table 7. People diagnosed with HIV infection by gender and year of diagnosis: Central HSR, Massachusetts<sup>1</sup>, 2004–2013<sup>2</sup>**

	Male		Female		Total
	N	%	N	%	
2004	50	60%	34	40%	84
2005	51	71%	21	29%	72
2006	50	62%	31	38%	81
2007	37	62%	23	38%	60
2008	33	57%	25	43%	58
2009	41	73%	15	27%	56
2010	35	58%	25	42%	60
2011	39	64%	22	36%	61
2012	40	70%	17	30%	57
2013	32	68%	15	32%	47

<sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/15

**Table 8. People diagnosed with HIV infection by race/ethnicity and year of diagnosis: Central HSR, Massachusetts<sup>1</sup>, 2004–2013<sup>2</sup>**

	White Non-Hispanic		Black Non-Hispanic		Hispanic/Latino		Total <sup>3</sup>
	N	%	N	%	N	%	N
2004	34	40%	24	29%	24	29%	84
2005	31	43%	22	31%	17	24%	72
2006	24	30%	31	38%	22	27%	81
2007	25	42%	22	37%	12	20%	60
2008	24	41%	16	28%	16	28%	58
2009	20	36%	21	38%	13	23%	56
2010	20	33%	27	45%	11	18%	60
2011	20	33%	19	31%	19	31%	61
2012	20	35%	17	30%	16	28%	57
2013	16	34%	19	40%	11	23%	47

<sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

<sup>3</sup> Totals include Asian/Pacific Islander, American Indian/Alaskan Native individuals, and those of other or undetermined race/ethnicity.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/15

**Table 9. People diagnosed with HIV infection by place of birth and year of diagnosis: Central HSR, Massachusetts<sup>1</sup>, 2004–2013<sup>2</sup>**

	US		Puerto Rico/ US Dependency <sup>3</sup>		Non-US		Total
	N	%	N	%	N	%	N
2004	45	54%	14	17%	25	30%	84
2005	37	51%	12	17%	23	32%	72
2006	39	48%	12	15%	30	37%	81
2007	31	52%	6	10%	23	38%	60
2008	30	52%	13	22%	15	26%	58
2009	35	63%	6	11%	15	27%	56
2010	30	50%	5	8%	25	42%	60
2011	35	57%	7	11%	19	31%	61
2012	28	49%	9	16%	20	35%	57
2013	24	51%	-- <sup>4</sup>	-- <sup>4</sup>	-- <sup>4</sup>	-- <sup>4</sup>	47

<sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

<sup>3</sup> Ninety-eight percent of people living with HIV/AIDS in MA who were born in a US dependency were born in Puerto Rico, 2% were born in US minor outlying areas, <1% were born in the US Virgin Islands, and <1% were born in Guam.

<sup>4</sup> Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/15

**Table 10. People diagnosed with HIV infection by exposure mode and year of diagnosis: Central HSR, Massachusetts<sup>1</sup>, 2004–2013<sup>2</sup>**

	MSM		IDU		MSM/ IDU		HTSX		Other		Pres. HTSX <sup>3</sup>		Undeter- mined <sup>4</sup>		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N
2004	17	20%	19	23%	-- <sup>5</sup>	-- <sup>5</sup>	23	27%	-- <sup>5</sup>	-- <sup>5</sup>	14	17%	9	11%	<b>84</b>
2005	26	36%	16	22%	0	0%	7	10%	0	0%	13	18%	10	14%	<b>72</b>
2006	24	30%	11	14%	-- <sup>5</sup>	-- <sup>5</sup>	12	15%	-- <sup>5</sup>	-- <sup>5</sup>	18	22%	15	19%	<b>81</b>
2007	22	37%	8	13%	0	0%	8	13%	0	0%	12	20%	10	17%	<b>60</b>
2008	15	26%	11	19%	-- <sup>5</sup>	-- <sup>5</sup>	11	19%	-- <sup>5</sup>	-- <sup>5</sup>	9	16%	11	19%	<b>58</b>
2009	22	39%	-- <sup>5</sup>	-- <sup>5</sup>	-- <sup>5</sup>	-- <sup>5</sup>	10	18%	-- <sup>5</sup>	-- <sup>5</sup>	-- <sup>5</sup>	-- <sup>5</sup>	11	20%	<b>56</b>
2010	16	27%	6	10%	-- <sup>5</sup>	-- <sup>5</sup>	10	17%	-- <sup>5</sup>	-- <sup>5</sup>	13	22%	12	20%	<b>60</b>
2011	17	28%	8	13%	-- <sup>5</sup>	-- <sup>5</sup>	15	25%	-- <sup>5</sup>	-- <sup>5</sup>	7	11%	13	21%	<b>61</b>
2012	26	46%	6	11%	-- <sup>5</sup>	-- <sup>5</sup>	-- <sup>5</sup>	-- <sup>5</sup>	-- <sup>5</sup>	-- <sup>5</sup>	14	25%	8	14%	<b>57</b>
2013	18	38%	-- <sup>5</sup>	-- <sup>5</sup>	-- <sup>5</sup>	-- <sup>5</sup>	-- <sup>5</sup>	-- <sup>5</sup>	-- <sup>5</sup>	-- <sup>5</sup>	9	19%	11	23%	<b>47</b>

<sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

<sup>3</sup> Includes female sex with male of unknown HIV status or risk. This category is limited to females.

<sup>4</sup> Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

<sup>5</sup> Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.

MSM = Male-to-Male Sex; IDU = Injection Drug Use; MSM/IDU = Male-to-Male Sex and Injection Drug Use; HTSX = Heterosexual Sex; Pres. HTSX = Presumed Heterosexual Sex

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/15



**Table 11. People diagnosed with HIV infection and AIDS within two months and all people diagnosed with HIV infection by year of diagnosis: Central HSR, Massachusetts<sup>1</sup>, 2004–2013<sup>2</sup>**

	HIV and AIDS diagnosed within two months	All HIV infection diagnoses	% diagnosed with HIV and AIDS within two months
Year:	N	N	%
2004	31	84	37%
2005	28	72	39%
2006	28	81	35%
2007	25	60	42%
2008	27	58	47%
2009	19	56	34%
2010	19	60	32%
2011	22	61	36%
2012	19	57	33%
2013	13	47	28%

<sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.  
Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/15

**Table 12. People diagnosed with HIV infection and AIDS within two months and all people diagnosed with HIV infection by gender, race/ethnicity, and place of birth: Central HSR, Massachusetts,<sup>1</sup> 2011–2013<sup>2</sup>**

	HIV and AIDS diagnosed within two months	All HIV infection diagnoses	% diagnosed with HIV and AIDS within two months
<b>Gender:</b>	<b>N</b>	<b>N</b>	<b>%</b>
Male	39	111	35%
Female	15	54	28%
<b>Race/Ethnicity:</b>	<b>N</b>	<b>N</b>	<b>%</b>
White (non-Hispanic)	17	56	30%
Black (non-Hispanic)	22	55	40%
Hispanic/Latino	13	46	28%
Asian/Pacific Islander	-- <sup>5</sup>	-- <sup>5</sup>	-- <sup>5</sup>
Other/Undetermined <sup>3</sup>	-- <sup>5</sup>	-- <sup>5</sup>	-- <sup>5</sup>
<b>Place of Birth:</b>	<b>N</b>	<b>N</b>	<b>%</b>
US	-- <sup>5</sup>	-- <sup>5</sup>	-- <sup>5</sup>
Puerto Rico/US Dependencies <sup>4</sup>	-- <sup>5</sup>	-- <sup>5</sup>	-- <sup>5</sup>
Non-US	25	59	42%
<b>Total</b>	<b>54</b>	<b>165</b>	<b>33%</b>

<sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

<sup>3</sup> Includes American Indian/Alaska Native, other and unspecified race/ethnicity.

<sup>4</sup> Ninety-nine percent of people diagnosed with HIV infection from 2011–2013 who were born in a US dependency were born in Puerto Rico, <1% were born in the US Virgin Islands.

<sup>5</sup> Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/15